

WARNING: 30th July 2008

We continue to have problems downloading Boolean search results. We are working to resolve them.

Search for

Go To **Organisms**Go To **Shortcuts**Help
Contact
curator

General Information

[Add to Basket](#)[View Basket](#)

Systematic Name SPAC1F8.07c
 Status role inferred from homology
 Product pyruvate decarboxylase (predicted)
 Type CDS
 Sequence DNA and Protein

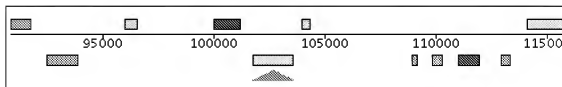
Location

Chromosome 1
 Contig Location complement(101760..103544) (Unspliced length: 1785 bp)
 Exons complement(101760..103544) (Spliced length: 1785 bp)

[Region download
and display \(in
Artemis\)](#)

[Genome Browser](#)

Context Map:



SPNCRNA.139 SPAC1F8.04c *isp3* *fta5* >SPAC1F8.07c< SPAC1F8.08 SPAC11D3.01c SPAC11D3.02c
 SPAC11D3.03c SPAC11D3.04c *mfs2*

Curation

Term
 conserved protein
 similar to *S. pombe* SPAC186.09 (paralog)

Other genes annotated to this term
 (81 Others)
 (0 Others)

Predicted Peptide Properties

| | | | |
|-----------------------|-----------|-------------|------|
| Mass | 64.7 kDa | Amino acids | 594 |
| Isoelectric point | pH 5.9 | Charge | -4.5 |
| Signal Peptide | Not found | | |
| Transmembrane Domains | 0 found | | |
| GPI Anchor | Not found | | |

Gene Ontology Annotation

| Term (browse Amigo) | Qualifier Evidence | Other genes annotated to this term |
|--|--|------------------------------------|
| Biological Process | | |
| generation of precursor metabolites and energy | NAS | 120 others |
| pyruvate metabolic process | ISS (PMID:17072883) with Interpro:IPR012110 | 25 others |
| Molecular Function | | |
| magnesium ion binding | IEA (GOA:interproGO_REF:0000002) with InterPro:IPR000399 | 89 others |
| pyruvate decarboxylase activity | ISS (PMID:17072883) with Interpro:IPR012110 | 3 others |
| thiamin pyrophosphate binding | IEA (GOA:interproGO_REF:0000002) with InterPro:IPR000399 | 6 others |
| transferase activity | IEA (GOA:interproGO_REF:0000002) with InterPro:IPR000399 | 645 others |

Catalytic Activity

EC 4.1.1.1 : IUBMB

Published Expression Profiles

Gene Expression Viewer [Cell Cycle](#) [Meiosis](#) [Environmental Stress](#) [Pheromone Response/Mating](#)

TranscriptomeViewer [SPAC1F8.07c](#) High-resolution view of transcripts in neighbourhood

Literature

Search for in PubMed

Domain Information

View Pfam domain structure for this gene product

View SCOP superfamily

| DB | Accs | Description |
|----------|---------------------------|--|
| Pfam | PF02776 | Thiamine pyrophosphate enzyme, N-terminal TPP binding domain |
| Pfam | PF00205 | Thiamine pyrophosphate enzyme, central domain |
| Pfam | PF02775 | Thiamine pyrophosphate enzyme, C-terminal TPP binding domain |
| InterPro | IPR012110 | Pyruvate decarboxylase/indolepyruvate decarboxylase |
| InterPro | IPR000399 | TPP-binding enzymes |
| InterPro | IPR012001 | Thiamine pyrophosphate enzyme, N-terminal TPP binding region |
| InterPro | IPR011766 | Thiamine pyrophosphate enzyme, C-terminal TPP-binding |
| InterPro | IPR012000 | Thiamine pyrophosphate enzyme, central region |
| PROSITE | PS00187 | Thiamine pyrophosphate enzymes signature. |

Database Cross-References

| DB | Accs | Description |
|------------------|-----------------------------|--|
| UniProtKB | Q92345 | Probable pyruvate decarboxylase C1F8.07c (EC 4.1.1.1). |
| EMBL | CU329670 | Schizosaccharomyces pombe chromosome I |
| Biotwiki | SPAC1F8_07c | Biotwiki |
| NCBI Entrez Gene | SPAC1F8.07c | NCBI Entrez Gene |
| FYSSION | SPAC1F8.07c | FYSSION |
| GermOnline | SPAC1F8.07c | GermOnline |

NBRP [SPAC1F8.07c](#) Fission yeast strain database, National BioResource Project (Japan)
 PIR [T38114](#) PIR
 YOGY [SPAC1F8.07c](#) Retrieval of eukaryotic orthologs

UniProtKB Annotation For This Protein

Catalytic Activity A 2-oxo acid = an aldehyde + CO(2).
Cofactor Binds 1 metal ion per subunit. ; Binds 1 thiamine pyrophosphate per subunit.
Similarity Belongs to the TPP enzyme family.
Subunit Homotetramer (By similarity).
Keywords Complete proteome ([4982 others](#)), Decarboxylase ([11 others](#)), Flavoprotein ([45 others](#)),
 Lyase ([60 others](#)), Magnesium ([81 others](#)), Metal-binding ([451 others](#)), Thiamine
 pyrophosphate ([11 others](#))

This UniProtKB entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See <http://www.isb-sib.ch/announce/> or send an email to license@isb-sib.ch).

Hosted by the [Sanger Institute](#)

[Curator feedback](#)

[Technical feedback](#)